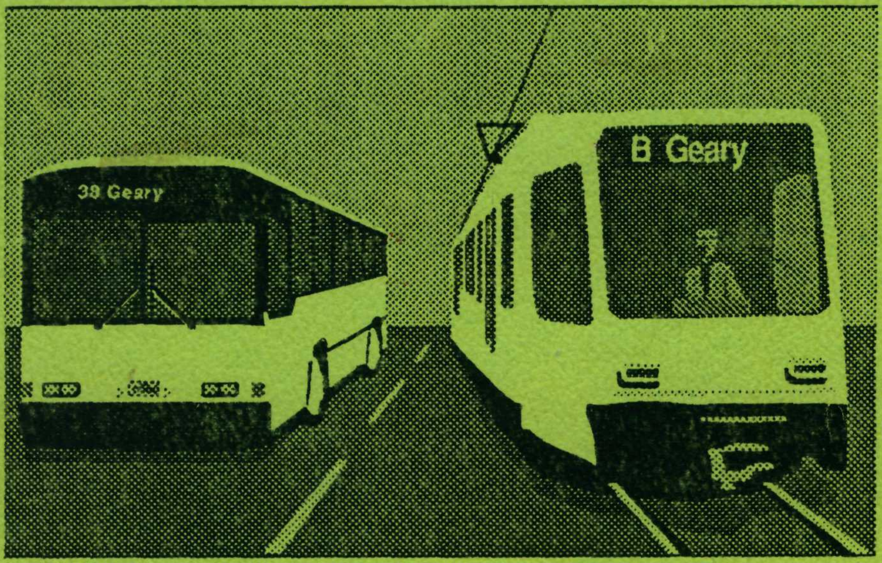
Geary Transit Task Force Final Report



October 1989

FIGURE 4

DKS

CORRIDOR OPTIONS

Geary Boulevard

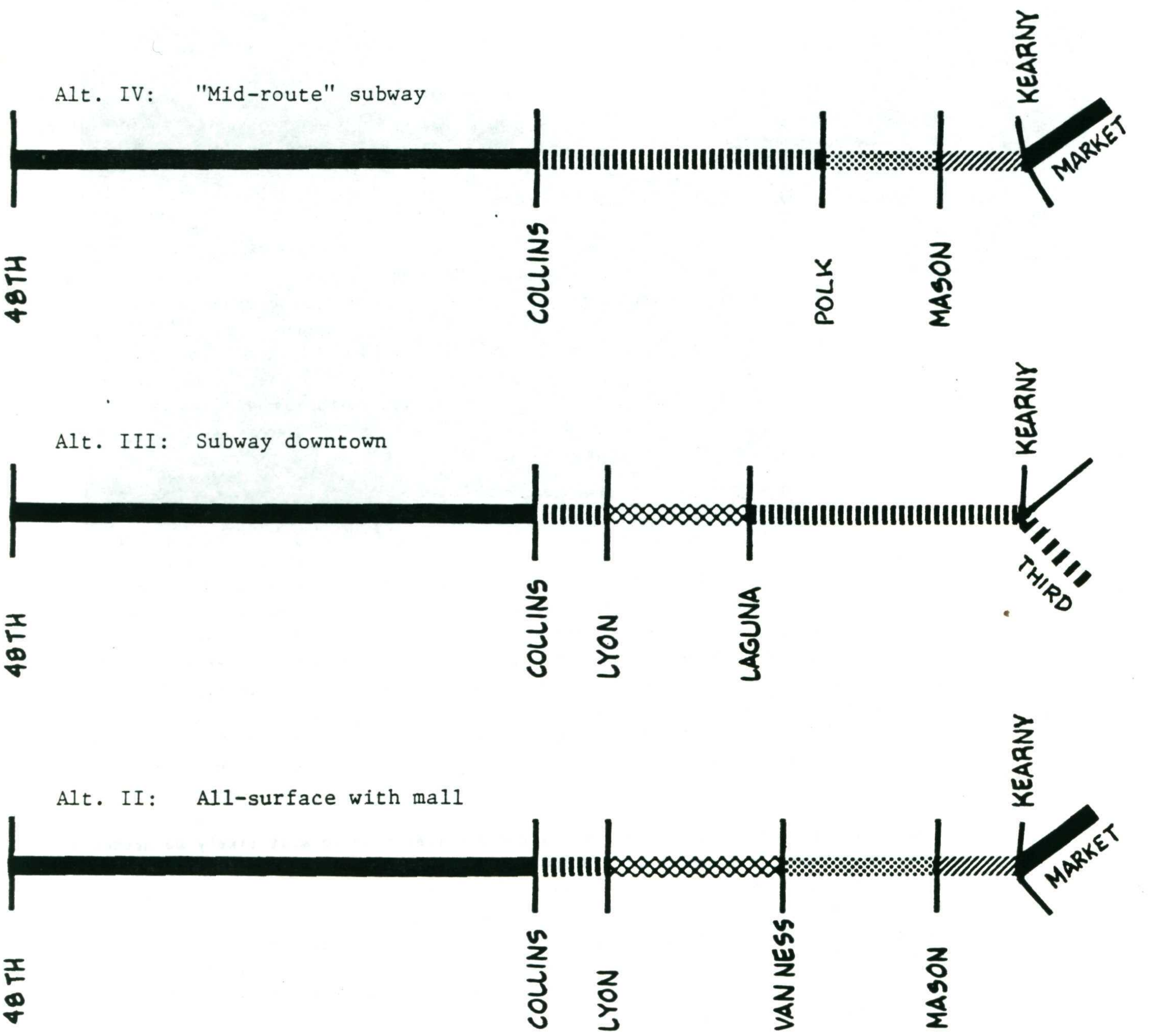
▬ EXCLUSIVE ROW OR MIXED FLOW

▒ MIXED TRAFFIC

▮▮▮ SUBWAY WITH STATIONS

▩ EXCLUSIVE ROW

▨ MALL

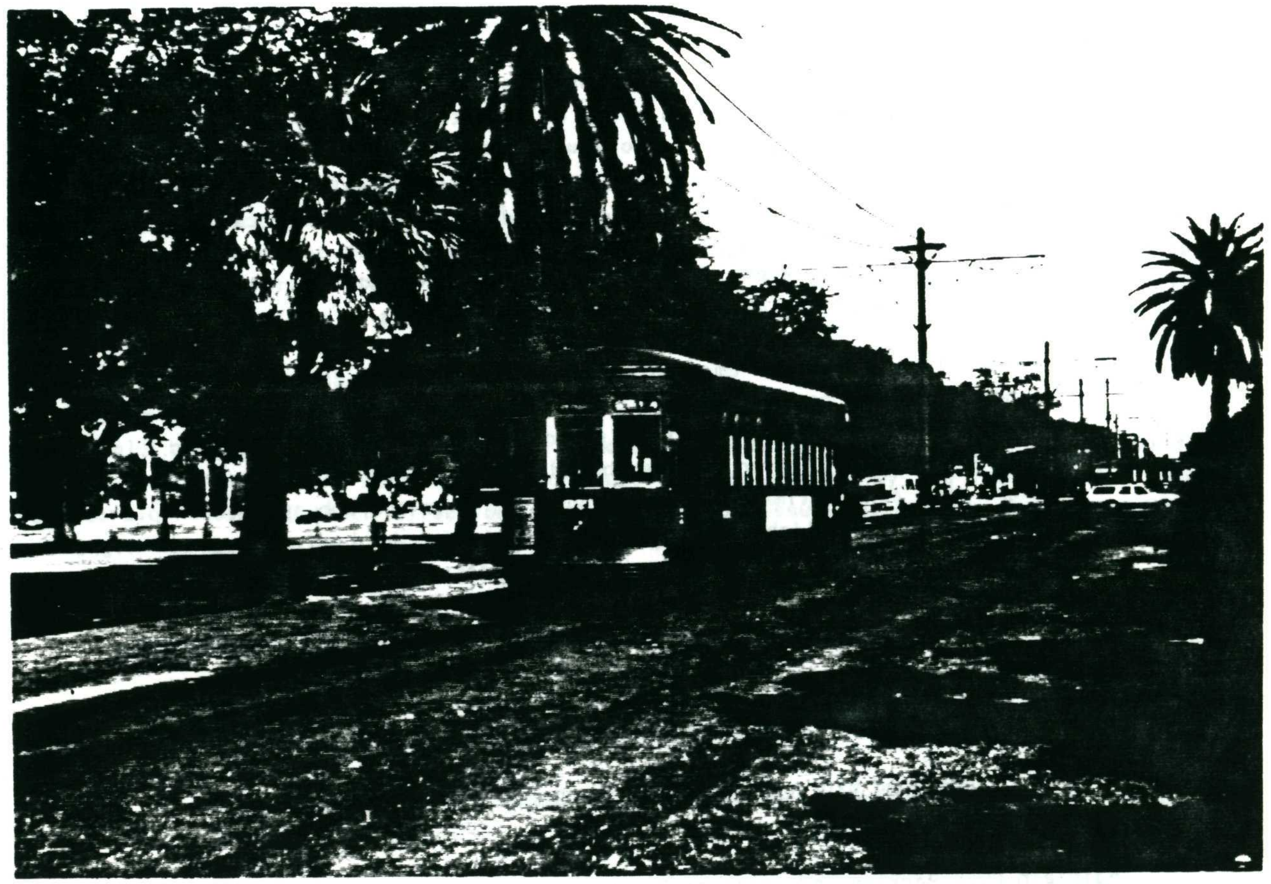


Alt. IV: "Mid-route" subway

Alt. III: Subway downtown

Alt. II: All-surface with mall

FIGURE 6



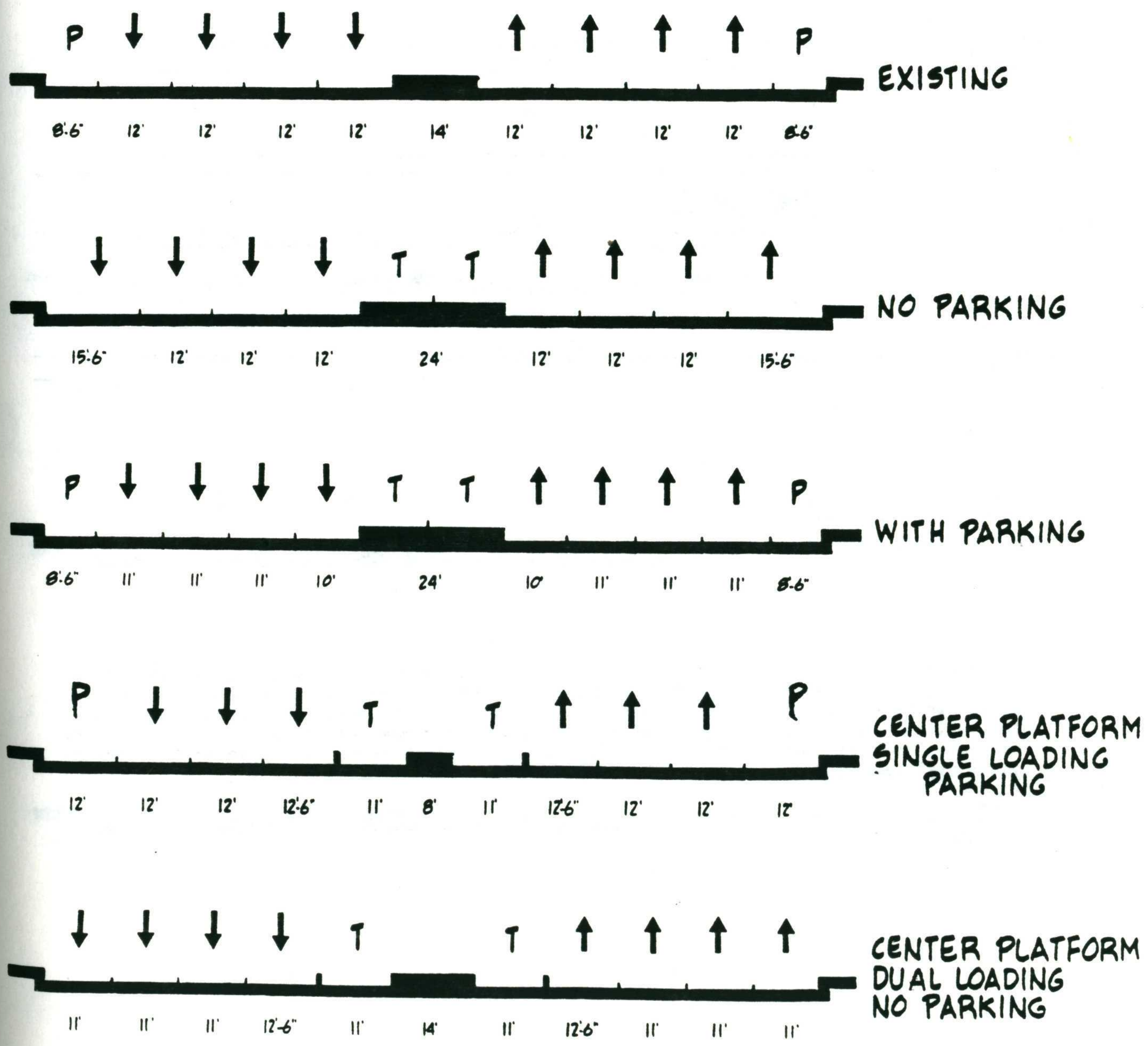
This is an example of a grassed median complete with tracks and an old-time streetcar still in operation in New Orleans on the St. Charles line. This line operates through a posh neighborhood and is wide enough for tree plantings. The portion of Geary Boulevard between Gough and Divisadero is wide enough to allow for six traffic lanes, trees, and other landscaping, as well as a grassed trackway.

DKS

FIGURE 7

GOUGH TO SCOTT (Expressway Alternatives)

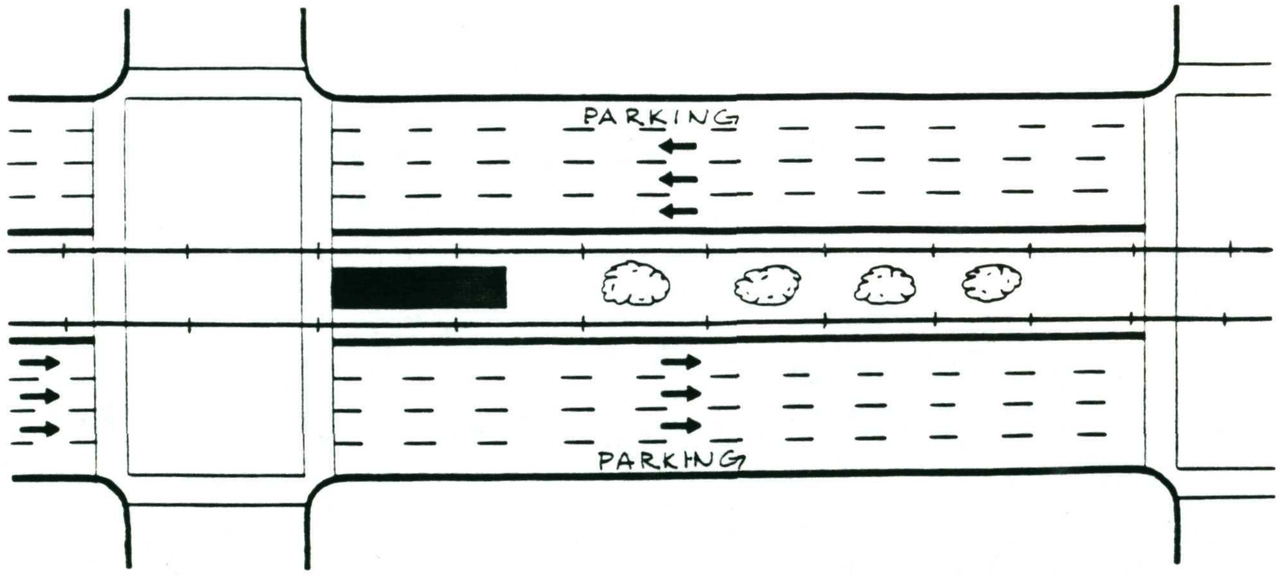
127' Curb to Curb



A separate median for light rail vehicles can be created on this section by either removing a traffic lane in each direction, removing parking, or simply narrowing lanes. On this very wide section of Geary, a very wide, landscaped median for light rail could be created by converting two traffic lanes to grassed trackways adjacent to the existing landscaped median. Loading can be accommodated for both directions from a single loading platform located between the tracks. If the existing number of traffic lanes are retained, space for the wider median required at loading islands could be created by removing some parking or by narrowing the traffic lanes.

FIGURE 8

CENTER PLATFORM (127' CURB TO CURB)
DUAL LOADING - WITH PARKING

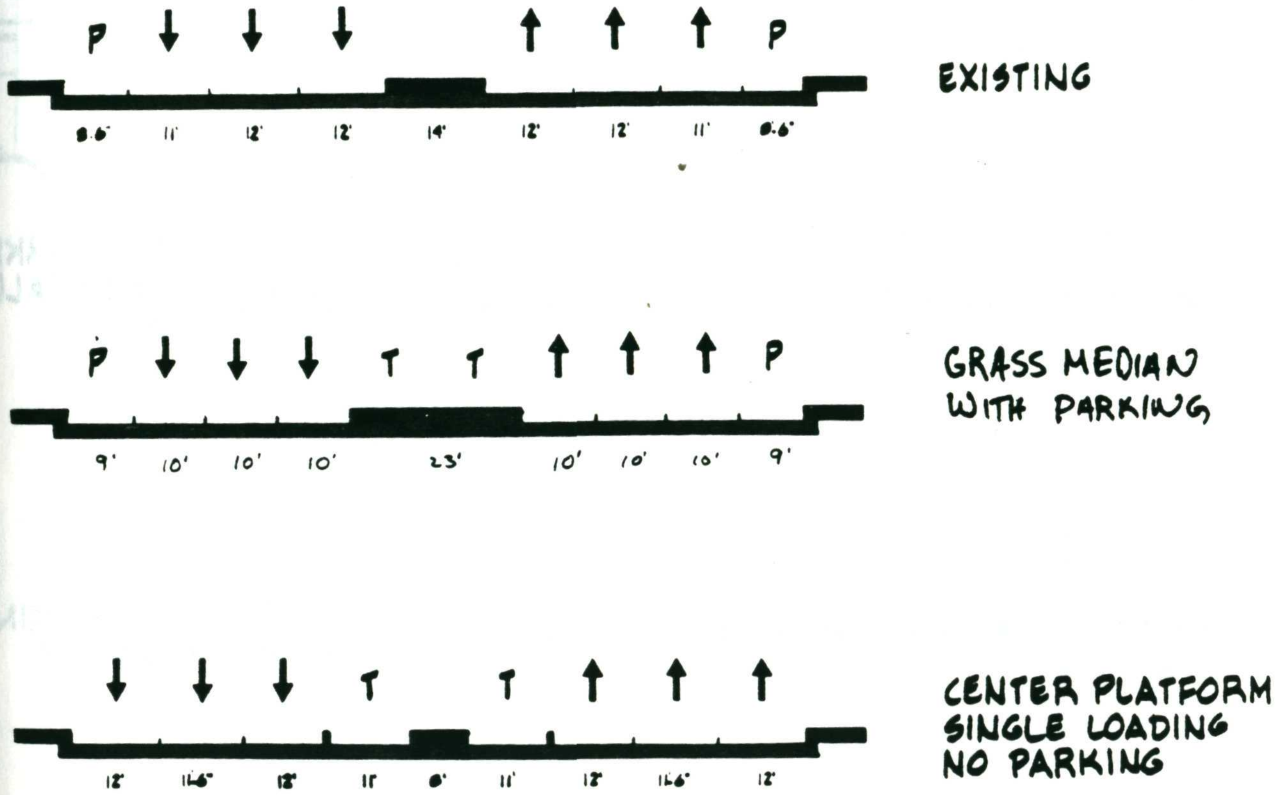


Above is a plan view of the widest section of Geary with the existing median and two traffic lanes converted to grassed trackways. Since the peak auto flow occurs at Lyon Street where there are only six lanes total, the two extra lanes here can be turned over to light rail and landscaping. However, the existing number of lanes can be retained by narrowing both the median and the traffic lanes. Incidentally, this plan would increase parking since the bus zones would not be needed.

FIGURE 9

DIVISADERO TO LYON

101 Curb to Curb

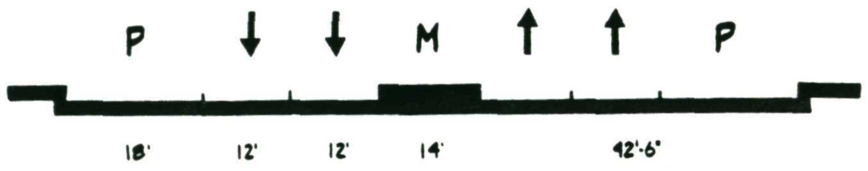


Where the boulevard narrows, space for a light rail median could also be provided by removing a lane in each direction, removing parking, or narrowing the existing lanes. Narrowing lanes to provide a median while retaining parking was favored by the Task Force. Similar treatments are feasible for the segment between Masonic and Park Presidio Boulevard which is 99 feet wide and also has parallel parking.

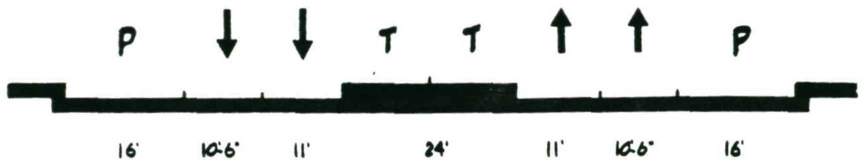
FIGURE 10

14TH TO 27TH AVENUE

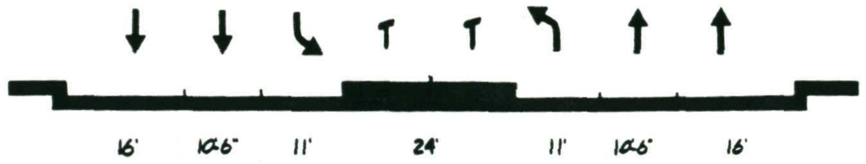
99' Curb to Curb



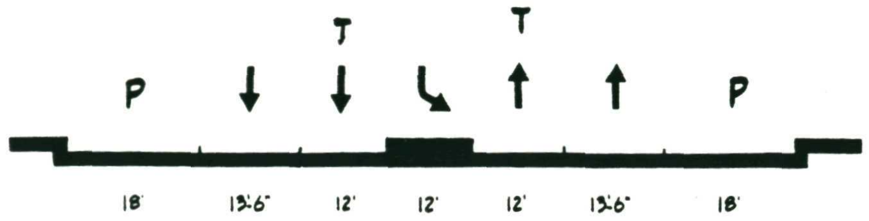
EXISTING



CENTER WITH PARKING
FLAT 40° (8×16 STALLS)
OR PARALLEL



CENTER - NO PARKING
AT INTERSECTION

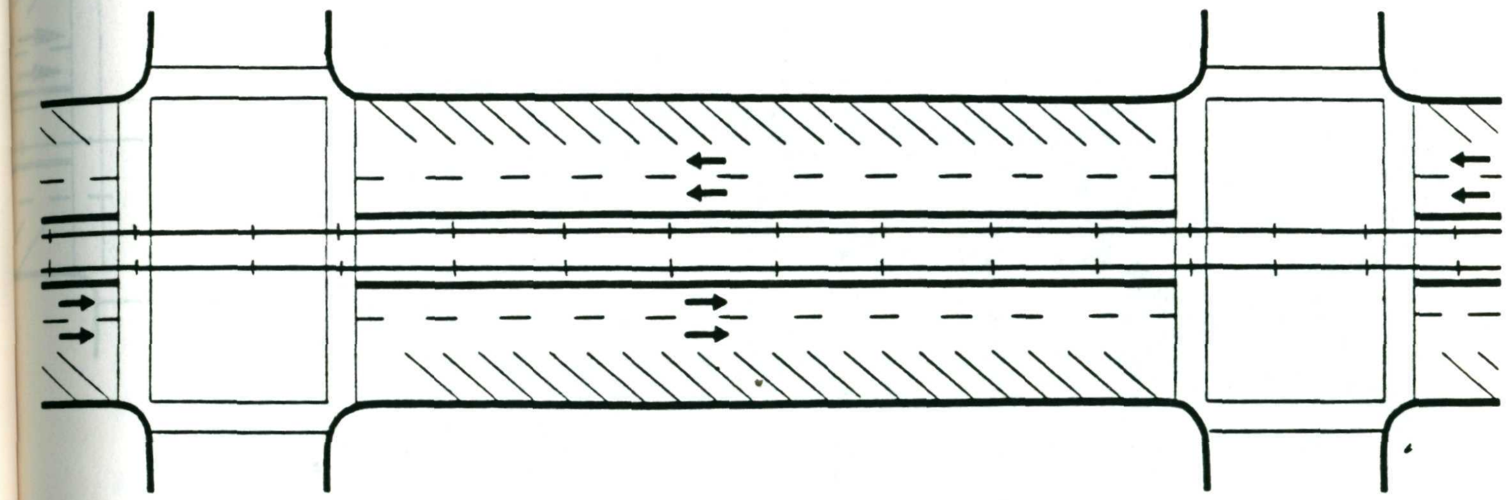


MIXED FLOW
60° (8'6"×16' STALLS)

With diagonal parking, a grassed light rail median could be provided by narrowing lanes and reducing the angle of the diagonal parking spaces. Loading islands in the median between the tracks or left-turn lanes could be accommodated by employing parallel parking on one side of the street with total parking spaces remaining about the same. Light rail could also be operated in the existing traffic lanes adjacent to the median using the median for loading islands or for left-turn pockets, but with reduced speed and service reliability.

FIGURE 11

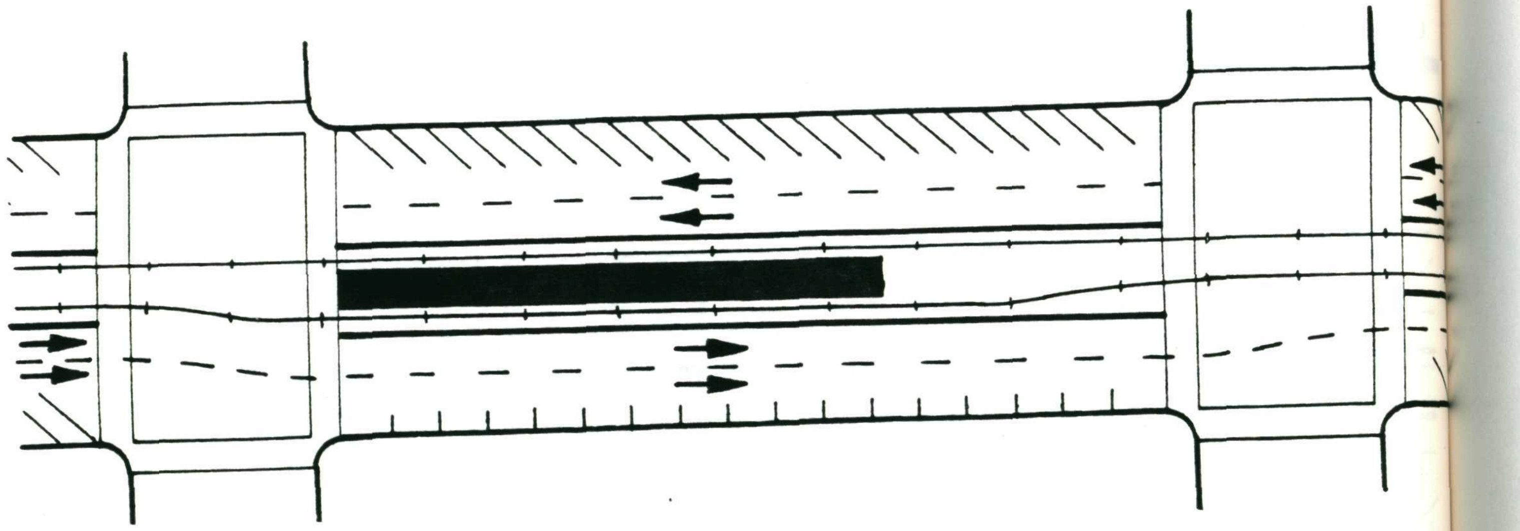
CENTER OPERATION WITH PARKING (99' CURB TO CURB)
FLAT 40° (8'×16' STALLS) OR PARALLEL



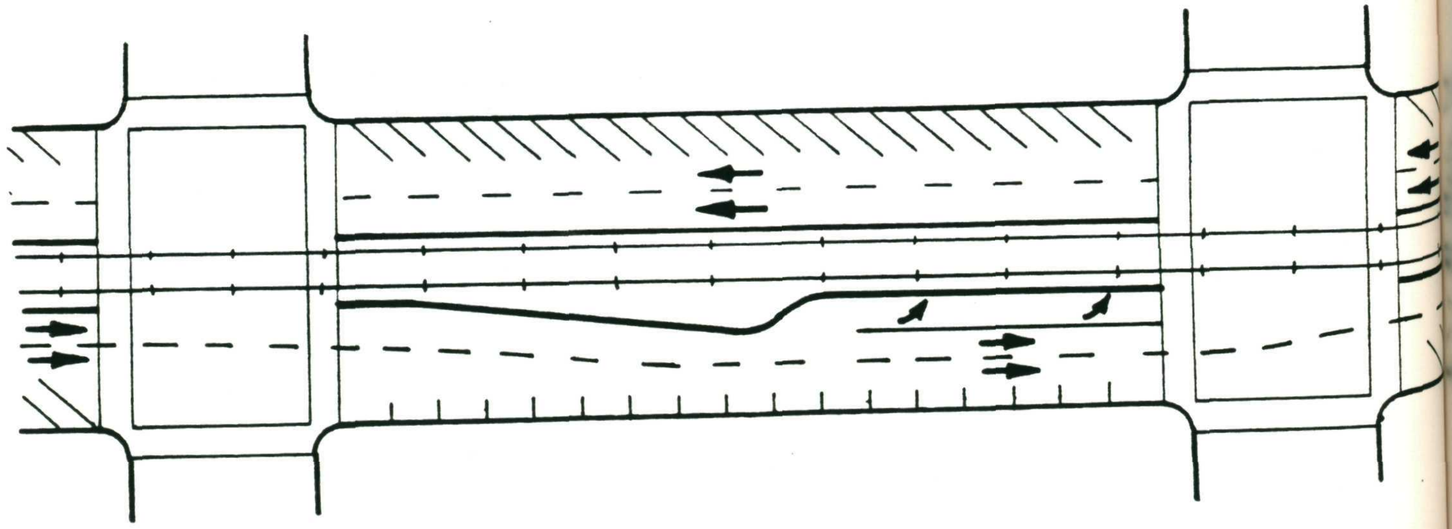
As shown above, where there is diagonal parking, a grassed light rail median can be provided by narrowing lanes and reducing the angle of the diagonal parking.

FIGURE 12

CENTER OPERATION WITH CENTER BOARDING PLATFORM

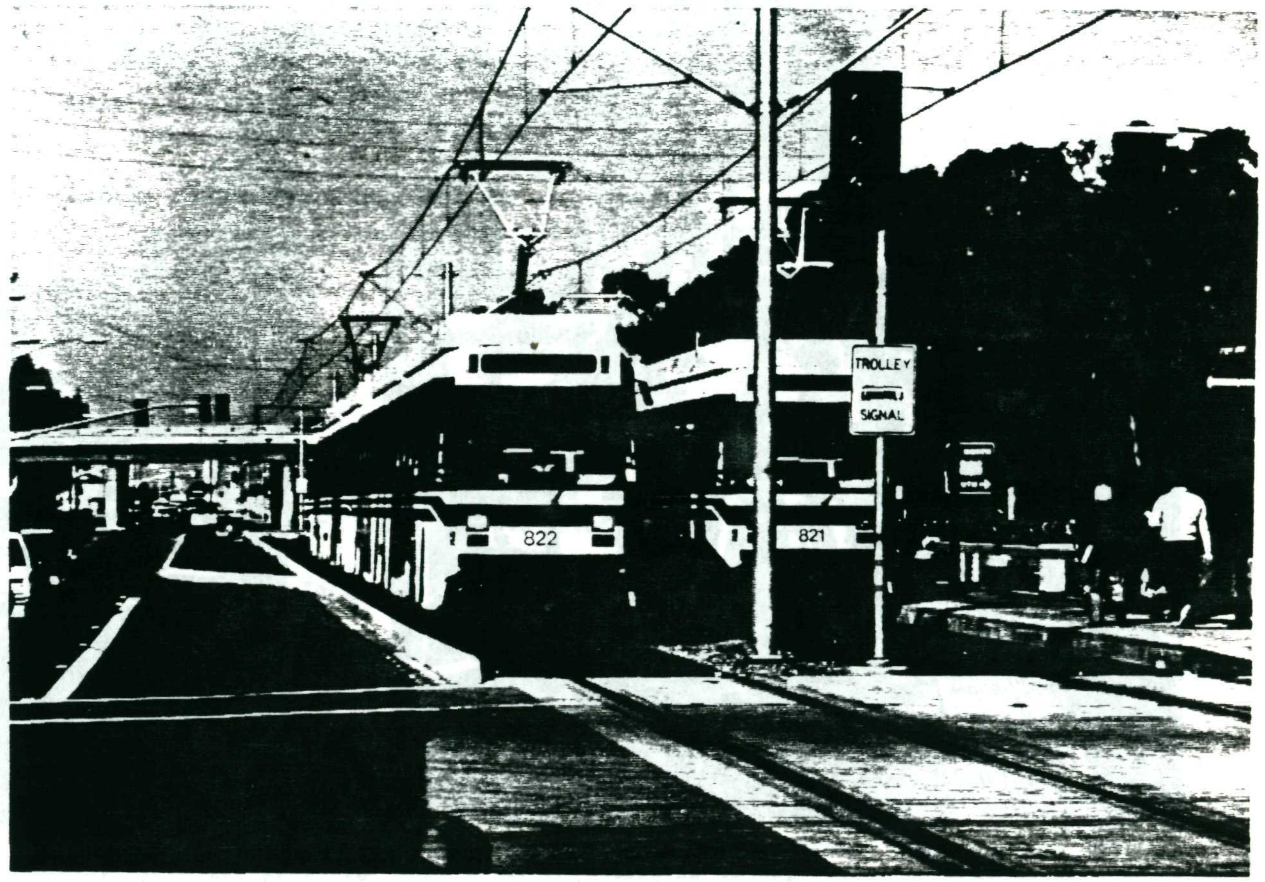


CENTER OPERATION WITH LEFT-TURN LANE



Where a loading island or left-turn lane is needed, parallel parking could be substituted for diagonal parking on one side of the street. Since existing bus zones would also be replaced by either parallel or diagonal parking, the total number of parking spaces would remain about the same.

FIGURE 13



On outer Geary, west of Park Presidio Boulevard, where left-turns are now allowed, there is room for the four existing traffic lanes, if narrowed, a grassed median for light rail, the existing number of parking spaces, and left-turn lanes. Adjacent to left-turn lanes or median loading islands, parallel parking would be substituted for diagonal parking. Since there would be no curb bus zones, the number of parking spaces would stay the same.

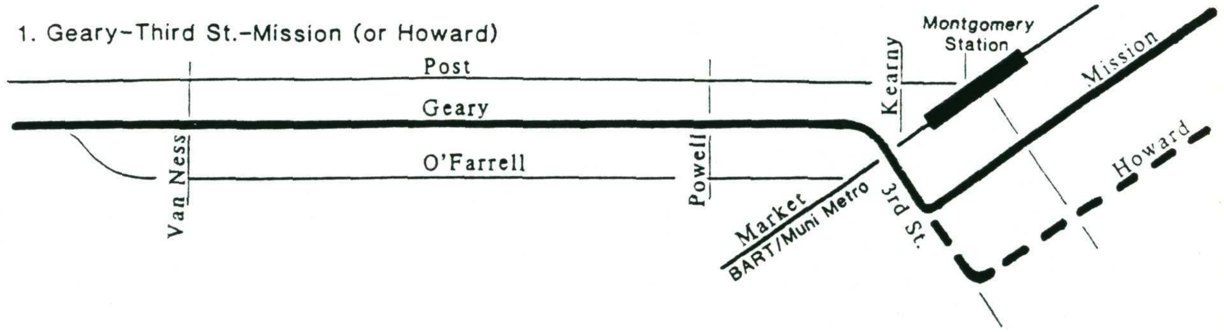
Between Masonic and Park Presidio, where there is now parallel parking and six traffic lanes, either parking could be removed or one lane of traffic in one direction could be removed to provide room for a grassed median with loading islands and left-turn lanes. Removing a lane would increase parking; otherwise, parking would be slightly reduced.

The photo above is of the new light rail line in Santa Clara County. Modern and quiet cars like these would be used on Geary instead of the cars currently used on the Muni Metro system.

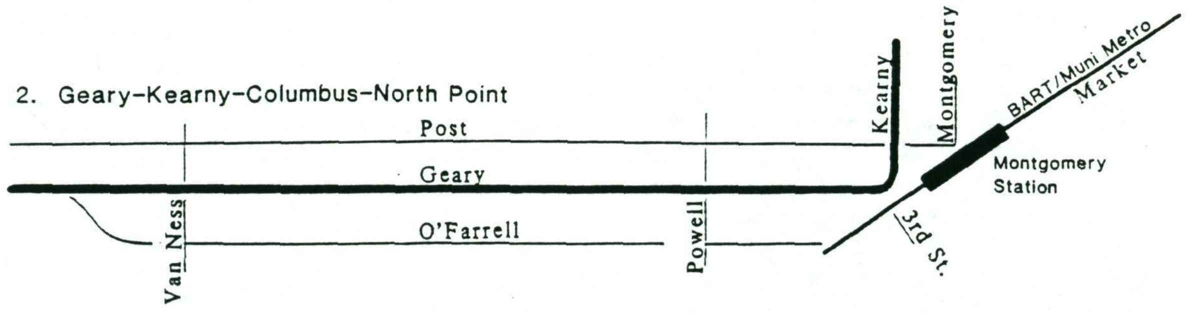
FIGURE 16

DOWNTOWN SUBWAY ALTERNATIVES

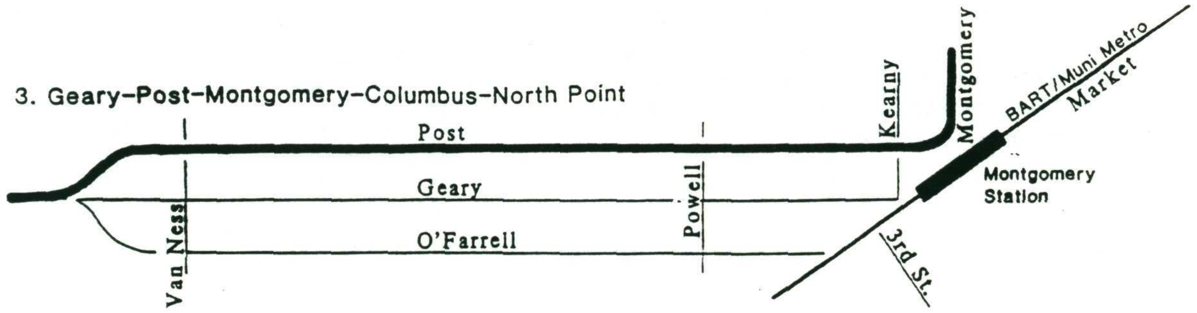
1. Geary-Third St.-Mission (or Howard)



2. Geary-Kearny-Columbus-North Point



3. Geary-Post-Montgomery-Columbus-North Point



The Market Street subway blocks the crossing of Market by another subway except between stations. Engineering studies are needed to determine the cost and feasibility of crossing Market at Third and Kearny Streets. From Third, the subway could proceed further downtown via Mission or Howard Streets. If Market cannot be crossed by a subway, a subway routing via Post would allow the subway to reach further into the financial district with possibly an extension north along Montgomery and Columbus.

TABLE VIII

DOWNTOWN STREET WIDTHS

O'Farrell (eastbound)		
Franklin to Hyde	44.9 feet wide	3 lanes
Hyde to Market	38.75 feet wide	2 lanes
Geary (westbound)		
Gough to Mason	44.9 feet wide	3 lanes
Mason to Market	38.75 feet wide	2 lanes
Post (eastbound)		
Gough to Taylor	48.9 feet wide	3 lanes
Taylor to Market	38.75 feet wide	2 lanes
Sutter (westbound)		
Gough to Grant	44.9 feet wide	3 lanes
Grant to Market	38.75 feet wide	2 lanes

- Alternative Downtown Surface One-Way Street Treatments -

Wide-Street--One-Way Center-Median--Mason to Gough

The opportunity for a center median is limited in the downtown. On the wider portions of these streets, there would be room for center lane medians for a single track on each street. Since Post is wider than the other streets west of Taylor, use of this street instead of O'Farrell would be preferable for the inbound direction. O'Farrell narrows at Hyde, a considerable distance from Market. The inbound track would then access a center median track on Post from Geary via Peter Yorke Way. (A signal pre-empt would be needed at Gough to allow inbound LRV's to crossover westbound Geary to Peter Yorke Way.)

Features:

1. Post--12' center separate trackway median on Post from Peter Yorke to Taylor.
2. Geary--10' center separate trackway median on Geary from Gough to Mason.
3. Traffic prohibited from crossing median (with the exception of cross traffic at intersections).

One-Way Narrow-Street Treatments--Market to Mason

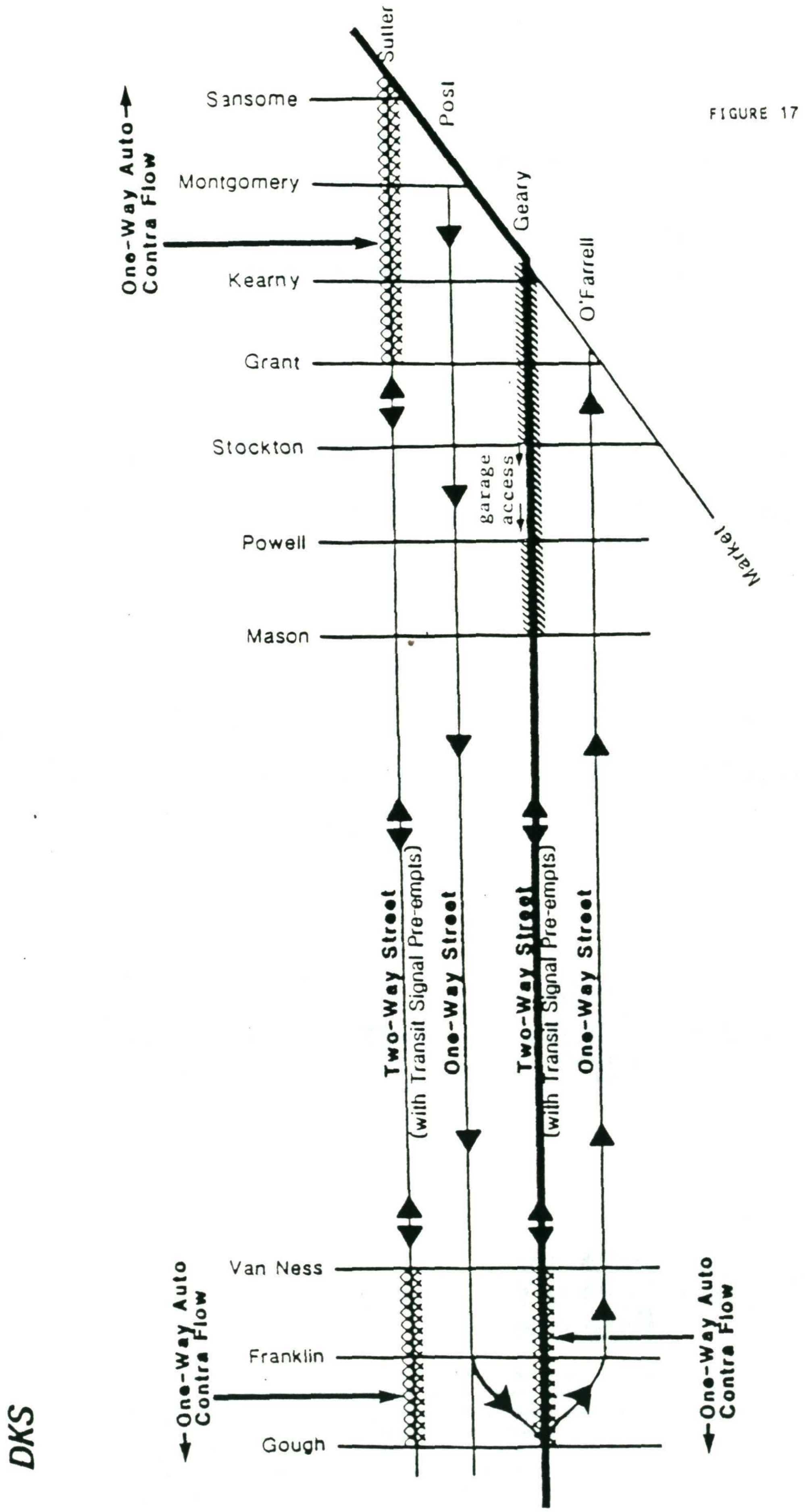
On the narrow portions of Geary and Post Streets, one of the following treatments could be used with the existing one-way street pattern:

Alternatives:

1. Side-of-the-Road Rail-only lanes adjacent to the curb.
2. Transit Priority Lanes Painted transit lanes adjacent to parking. The lanes would be the same in appearance and width as the existing bus lanes and could be used by autos to access parking spaces or make right-turns.
3. Two-Way Transit-Commercial Street (On Geary or Post) Convert the narrow downtown portion of either Post or Geary to a transit-commercial street which would be restricted to transit and commercial vehicles only.

   --With a transit-commercial street treatment on inner Post, eastbound auto traffic on Post would be required to either turn left at Taylor or right at Mason. The outbound light rail track would turn left off Post onto Mason and then use a center lane median on Geary west of Mason. Between Taylor and Mason on Post, the inbound track would be on the left half of the street allowing auto traffic to use the right hand lane as far as Mason where all auto traffic would turn right onto Mason. If the transit-commercial street were on inner Geary Street east of Mason street, the tracks would be in the center medians of Post and Geary west of Mason; however, the inbound tracks on Post would use the right hand lane between Taylor and Mason and turn right onto Mason to reach Geary and proceed downtown.

FIGURE 17



Geary Two-Way Street

With this alternative, Geary and Sutter would return to be being two-way streets for transit, and Post would be reversed to one-way westbound for autos. This is the pre-1970 traffic pattern for these streets with the exception that autos would not be allowed onto Geary in the eastbound direction at Gough. A number of treatments could be employed to encourage autos to use O'Farrell and Post Streets. Signals can be timed to favor transit on Geary and Sutter and autos on Post and O'Farrell. Signals can be partially pre-empted to provide more green time for transit and less for autos on Geary or Sutter. Special transit lanes could also be provided on one side of Geary for light rail.